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ESSAY *on a* SYSTEM of NATIONAL EDUCATION,
adapted to IRELAND. By STEPHEN DICKSON, *State*
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EDUCATION may be defined the rearing of youth. Youth ought to be reared in such a manner as will be most conducive to their future welfare. The welfare of a nation consists in the strength, good order, and skill of the individuals who compose it. Read July 9,
1792.

OF national education, then, that must be the best system by means of which the health, the morals, and the information of the youth of the nation may be most universally and effectually promoted.

IN the following essay I shall consider how the promotion of these great objects may be facilitated by a system of national education which shall include the children of the labouring poor.

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As the subject is not less extensive than important, I cannot expect that some considerations, deserving even of considerable regard, will not escape my notice. But I shall be little solicitous of finishing the minuter traits of systematic arrangement, if I be so fortunate as to design a correct outline.

To delineate from abstract views an Utopian scheme of national education, however consummate, would be of little advantage to a people already cemented in society. For it cannot be supposed that a great body of men, endowed with different portions of intellectual capacity, enlightened not only by different degrees but by various hues of knowledge, spotted with prejudices of various casts, smitten with the love of separate pursuits, and affected by a great diversity of private interests, should ever conspire to carry into effect even the best digested system of speculations originating from any individual.

THE object of the patriotic proposer of the question under consideration will (it is apprehended) be better attained by merely sketching out a model of civil polity according to the leading features of which we might and ought to mould the rising generation of Ireland.

It appears adviseable in a disquisition of this kind, to keep constantly in view not only the genius and the interest, but even the present state of the country which claims our chief regard. But I conceive that it would be improper to enter very minutely into the detail of any plan; since the
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most easily feasible must require various modifications, according to local advantageous or unfavourable circumstances.

THE following considerations concerning the manner of rearing the youth of this kingdom relate, 1st, To their health; 2dly, To their morals; and, 3dly, To their instruction in the knowledge requisite for the several departments which they are to fill in society.

Of Education as it concerns Health.

SUCH is the connexion between the corporeal and intellectual faculties of man, that the vigour of the former invariably tends to promote the energy of the latter. When the senses are acute and the perceptions vivid, the empire of the imagination is enlarged, and reason has an extended scope for exertion. When muscular strength seconds the suggestions of the soul, the human being is perpetually active. The power of overcoming obstacles is never long unattended by the ingenuity which points out the means, and the passion which instigates to the attempt. But dullness of sensation and weakness of frame are the parents of despondence, and sloth, and ignorance.

THE offspring of diseased parents faintly struggle through the feeble state of childhood. Yet by care hereditary maladies may oftentimes be corrected, or even entirely destroyed. Then the

boy puts forth his faculties, as tender shrubs which have been sheltered in their infancy shoot out germs that defy succeeding blasts. But if the infant have been neglected, the boy will be feeble, the youth enervate, the man distempered, pusillanimous, and burdensome to society. Every one knows that sickness incapacitates the mind for any lofty daring, nay often for any thought but that of procuring relief from bodily distress. What is the whole life of a valetudinarian but a long fit of sickness?

THE preservation and rearing of infants should therefore be the first objects of national care.

THE pens of elegant and forcible writers have been employed to impress upon the minds of women a sense of the amiableness as well as virtue of fulfilling the first duty of humanity, the most interesting office of maternal love, I mean the nursing of their own children. Let these advocates for the best affections still urge their honourable cause. Let them force a decent blush into the cheek of dissipated grandeur, wring sighs of remorse from the bosom of dereliction, and harrow the soul of sensibility with the sufferings of abandoned innocents. Their eloquence will not be wholly lost in a kingdom to which virtue has not yet bidden adieu.

BUT too much room will still remain for the interposition of national tenderness to snatch from destruction the outcasts of shame, hard-heartedness, and misery. An institution which
provides

provides for the reception and care of foundlings is, therefore, of inestimable public utility, and decidedly entitled to the warmest support and patronage of the nation.

LET us now inquire how an institution of this kind should be modified, so as to extend the utmost possible advantage to the community.

FIRST, the admission of infants to the benefits of this institution should be accomplished with ease to the mothers, and safety to the children.

IN proportion to the difficulty of disposing in this way of such children as their parents are either unable or unwilling to maintain, will be the temptation to dispose of them in some other, and that a worse way. Access to a receiving-cradle should therefore be as easy as possible. Mothers who are oppressed with poverty, mothers who skulk to hide a surreptitious birth, can, neither of them, make long journeys to deposite their infants in a place of security.

IN Scotland the people are, in comparison of the rest of Europe, undebauched. But it is the nature of woman to forfeit the sense of virtue before the sense of shame. In Scotland therefore there are women who privately give up their chastity, but whom no consideration could induce to avow their transgression. There is no foundling hospital in that kingdom. It is in many cases impossible to convey the fruit of intrigue

to London or Dublin without the greatest risk of discovery. The wretched devotees of character then embrace the horrid alternative, and in the tumults of flame and despair sacrifice the lives of their offspring, and hazard their own eternal lives. It is notorious that in Scotland fewer crimes fall under the punishment of the law than in any other polished society of equal numbers, the crime of child-murder excepted ; and there is even reason to believe that that crime is much more frequently perpetrated than detected.

FROM hence I infer the propriety of establishing receiving-cradles for foundlings in different parts of Ireland. Nor would the care of these add much to the general expence of the institution, if they were annexed to, or even rendered a constituent part of the establishment of every county infirmary.

I SAID that the safety of the foundlings admitted to the benefits of this charity should be an object of national care. But I am persuaded that their safety is not compatible with the necessity of undergoing long journeys, during their tenderest infancy, perhaps without proper food or raiment, exposed to cold, and the damps of night, beside all the accidents to which their delicate bodies are so much more liable than those of grown persons.

A WEAKLY infant is frequently sent in the most inclement season, from the remotest corner of Ireland to the cradle in the capital. From thence it must again set out, and undergo
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the fatigues of further travel, to the home of its appointed nurse. We omit to think how many children must unavoidably perish by this mismanagement.

How far better would it be if the deserted infant were to be reared in the vicinity of its native spot, without any waste of that little portion of vital strength which is its sole inheritance!

PERHAPS also this plan might be politic on another account. It might be right to leave in the mother's power to watch unseen the growth of her offspring. If she had resigned it through poverty, fortune might change, and put it in her power to relieve the community from the burden of her charge. If she had deserted it through shame, the silent memorial of her misdeemeanour perpetually haunting her, like a warning spirit, might awaken in her mind a sense of contrition and a purpose of atonement by protecting and befriending (whenever it might lie in her power) the unfortunate fruit of her transgression.

SECONDLY, Care ought to be taken that foundlings receive good treatment while at nurse.

THIS cannot be accomplished without frequent inspection of the children, and actual visitation of their nurses habitations. I am sanguine in my expectation that this may be done, not only without expence, but in the most effectual manner.

Why

Why should we perpetually omit paying any tribute of respect to the public virtue of the more amiable half of the community? Are women of superior birth and education unfit to be entrusted with the management of any public concerns? Their delicacy indeed forbids them, and their gentleness incapacitates them from bustling through the mazes of stubborn politics. But to seek the sequestered cottage; to watch the tender deposit of the publick; to cherish the innocent and friendless orphan, who may, one day, be a support or an ornament of society—these are offices congenial to the feelings of the most refined and exalted of the female sex.

If foundlings were dispersed through various parts of the kingdom, the rearing of them could be easily superintended by ladies residing in the country. The wages of nurses might also be paid by the hands of these gracious almoners of Providence, or by some person appointed in each county to whom proper certificates from them should be produced. This plan, while it would save nurses the time and money which they now waste in journeying to Dublin, would preserve the infants from the dangers of fatigue and cold to which they are exposed in accompanying them.

THIRDLY, Proper means should be employed to cure such children as are ill of infectious diseases.

THE diseases most fatal to infants are the small-pox, and the venereal disease.

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SINCE the introduction of the practice of inoculation the virulence of one of these scourges of mankind has considerably abated; and nothing seems requisite to be added on this head to the cautions already observed except a perseverance in the practice, and a more extensive diffusion of its benefits by the benevolent activity of the physicians and surgeons of the several hospitals and dispensaries throughout the kingdom.

IN England some medical associations have been formed for the purpose of inoculating all the children in certain districts who have not had the small-pox; and the advantage accruing from these exertions has surpassed expectation, and almost surpasses belief. Similar associations in this country require only to be announced to be patronized*.

BUT the havock committed by the venereal disease is truly deplorable. Every second child committed to the foundling-cradle in Dublin inherits this shocking malady, and every one of these forfeits its life for the crime of its parents. I have been well informed that not a single infant tainted with this disorder at its birth has been ever saved in the foundling hospital of Dublin, except when given to a nurse undergoing a course of medicine; a circumstance which can very rarely happen.

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* By the exertions of a society instituted by Dr. Haygarth, the mortality of the small-pox in Chester was diminished in four years four-fifths.

Yet it is computed that even still the waste of human lives by the small-pox in Great Britain and Ireland, amounts annually to *fifty-five thousand five hundred and fifty*! See Howlett's Examination of Dr. Price's Essay on Population.

Is this disorder more virulent in Ireland than in England or France, in both of which countries I hear that children have been cured of similar complaints? Or might not some new means be advantageously attempted amongst us?

THESE are questions of such great national import, and which at the same time so highly concern the reputation of the faculty, that I have little doubt but committees from the colleges of physicians and surgeons might be easily induced to take them into their consideration. From the skilful exertions of such men we might perhaps without presumption augur some acquisition to the public welfare *.

WHAT provisions for the health of children of maturer years might be generally adopted through the kingdom, it is not easy to determine. This, however, may be safely alleged, that every species of exercise invigorates the animal frame, and therefore that all boyish sports have a salutary tendency.

BUT as the diversions of children not only develop the passions of youth, but often prepare the road for their future career,

* While I am looking towards an improved method of treating this disease in infants, I am rejoiced in the prospect of its frequency being diminished in the sources of their contamination, by an admirable plan devised by the present chief secretary. I allude to the General Lock Hospital in Dublin, the establishment of which is already commenced, and which is to be supported on such an extensive scale that it will receive every person affected with this disease who may apply, without their being under the necessity of procuring recommendation, or using any interest. An institution founded on such humane and liberal principles, and so well calculated to destroy an hydra already glutted with so many victims, stands in no need of arguments to enforce its panegyric.

career, it should enter into the policy of those who endeavour to mould the rising generation, to point out and encourage such juvenile amusements as are at once conducive to their health and favourable to their morals. Sports which excite a disinterested and honourable emulation ought to be encouraged ; but such as participate of ferocity, or emanate from the spirit of gambling, should be rigidly proscribed.

Let the martial spirit which is congenial to the people of Ireland, which forms a distinguished ornament of their national character, and which may be rendered a steady support of their liberties—let this spirit be cherished in the bosoms of our youth. Not a spirit forward in savage quarrels, or displayed in sallies of cruel vivacity, but a spirit patient of fatigue, yet arduous in exertion, submissive to discipline, but alive to public good.

JUVENILE corps taught to love arms for the sake of their country, and trained to use them in defence of its laws, will exhibit in their exercises sports worthy the sons of a wife and a magnanimous people. The sentiments and the labours of such youths will be a lesson to their fathers, as well as an example to posterity. Their ambition will be unfolded in competitions of virtue. Their relaxations from study will add nerves to courage, spirit to patriotism, and will render subordination and order national habits.

Of Education as it promotes Morality.

How the morals of the rising hope of the nation may be guarded and confirmed, deserves our most anxious consideration.

It will not be controverted that the precepts of the Christian religion ought to be inculcated as universally and as sedulously as possible. The example of its Divine Author is the pillar of fire which should attract the affections and guide the conduct of every member of society. The rank of no man can be so elevated as to set him above loving his neighbour, and doing to all men as he would they should do to him: Nor is the humble lot of any so unfortunate as to deprive him of the means of being meek and merciful, slow to anger, and ready to forgive injury.

CHARITY is the corner stone of the great edifice of Christ's church. Let that be preserved, and the prayers and oblations of every sect of Christians will be an acceptable sacrifice in the sight of God. Let the milk of human kindness be taught to flow through every channel of religion. Then, though the mazes of mystery and the involutions of knotty doctrine may continue to puzzle the understanding, they will cease to corrupt the heart.

THE institution of Sunday schools has been already productive of considerable public good. Habits of receiving instruction

tion and being obsequious to rule cannot be formed too early. The mind as it becomes enlightened grows fond of peace and order.

To encourage such schools would, therefore, be highly beneficial to society. And let them be encouraged without any limitations of religion or party, without any obstruction from the narrow jealousy of sectaries, or the idle apprehensions of overweening politicians.

IN a particular county in England the establishment of a Sunday school by presbyterians gave great offence, and received much opposition from the ministers and adherents of the established church. But could any thing be more preposterous? As if learning and charity were of any particular sect or party! Or as if it must not be the wish as well as the interest of all parents and pastors to rear up their children in piety and benevolence!

I HOPE no such disgraceful prejudices will find a resting place in this kingdom. Let differences in religion be no longer manifested by hatred, and reviling, and calumny, but by an honourable emulation in the sacred cause of learning and virtue. Let the catholic, and the presbyterian, and the quaker, vie with him of the established church, who shall most extensively diffuse the knowledge, and most effectually fulfil the commands of their common Father.

THERE are certain points of doctrine wherein Christians of all denominations agree. These, happily, are the most intelligible

gible to the capacities of children, and the most immediately connected with the conduct of human life. The fundamental precepts of the Christian religion, and their sanctions are truths of the most interesting, awful, and impressive nature, calculated to fill the youthful mind with the best affections, and supported by the concurrent assent of every Christian.

A SMALL book, containing the first principles of Christianity, drawn up by some pious and judicious persons, might be printed for the use of the children in all the Sunday schools in the kingdom. A very considerable number of such a valuable and unexceptionable manual might be dispersed gratis amongst the poor of all religious persuasions. This would contribute at once to put controversial animosity to sleep, and to arouse the spirit of active virtue. To defray the expense of such a publication every man who either reveres religion, or values the blessings of good order, would be solicitous to stand forward.

BUT our exertions must not terminate in the mere instruction of youth: we must incite them to good actions by example, by praise, by emolumentary recompense.

PRIZES of virtue have been distributed by academies in France to peasants who had distinguished themselves either by some particular splendid actions, or by a long course of laudable conduct. Let similar rewards be held forth in the different schools of this kingdom, and I have no doubt but they will rouse to exertion and exalt to notice, even in childhood, and
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amongst the lowest order of the people, numberless virtues which might otherwise have slept in perpetual oblivion. The seeds of honour, benevolence, and patriotism are thickly sown in the spirits of our countrymen: let instruction and encouragement cherish their growth, and their luxuriant branches will afford a wreath which shall decorate with new glory the character of the nation.

Of Education as it relates to instruction in the knowledge requisite for the several departments in society.

THIS part of our subject necessarily resolves itself into subdivisions correspondent to the different departments for which the youth of the nation are respectively intended. We shall treat of it first as it relates to the elementary instruction of all, particularly the children of the labouring poor, and afterwards as it relates to instruction in agriculture, mining, manufactures, and professional and polite literature.

Of the elementary instruction of the children of the labouring poor.

VERY young children are susceptible of the benefits of education. Even before attention can be fixed on the uninteresting objects which constitute the elements of written language, the mind may be trained to benevolence, and familiarized to subordination. By such early culture a reception
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is prepared for the seeds of learning, which delight to spread their roots in gentle dispositions and industrious habits.

As there is scarce any age so tender at which the human mind may not admit of melioration, so there is no young mind which does not stand in need of instruction. Of what nature and extent is that information which may be considered as requisite for every member of civilized society? What kind of instruction are the children of all the labouring poor of Ireland capable of receiving, and of rendering conducive to their private happiness, and to the public welfare? These important questions I shall now endeavour to answer.

It need scarcely, one would imagine, be insisted on that the commonalty in any country have no occasion for the knowledge of more than one language. To every member of society, indeed, the power of communicating his own thoughts, and comprehending the expression of the thoughts of those with whom he may be conversant, is indispensably necessary. Without this power business would stagnate, and pleasure, which depends so much upon sympathy, would want its choicest zest. But how can this be best attained by the people? By an uniformity of speech, a correct knowledge of one tongue? or by a smattering of several?

THE question must lie within these limits; for it would be vain to suppose that ordinary men could spare so much
time

time from the labours annexed to their station, as the attainment of more than one language, with tolerable accuracy, necessarily requires.

BUT even had the commonalty so much leisure, it is easy to see how much better they might employ it.

IN the Irish language there are no original works conveying such knowledge as is necessary to the poor. And as to classic literature, what can a taste for its beauties produce in the mind of a peasant but a distaste for those occupations by which only he can maintain his family, and be of use to the community? But the truth is, that Latin is learned by the poor of Ireland with a very different view from that of illuminating their intellect by a ray from the effulgence of ancient Rome. Their sole aim is to qualify themselves for the darkness of modern Rome. They aspire to be selected for the priesthood, and repair from their hovels to some hedge-school-master in eager quest of the little smattering of ecclesiastical language which he can afford them, and in full expectation of being sent abroad with a stipend, and returning to enjoy that indolence, and that controul over the minds of their brethren, which too often mark our vulgar clergy.

THE English language ought to be spoken and written as universally as possible over Ireland. The language of our laws, the living language of all the well educated part of the community, the only language by which instruction in arts, manufactures

manufactures and trade can be conveyed to our people.—What pains ought not to be taken to diffuse it throughout the kingdom! Reading and writing English should, therefore, be sedulously taught to every child in the nation, without exception of sex, obscurity, or indigence.

I do not propose the teaching of the English language according to the abstract and metaphysical rules of grammar, the comprehension of which is above the capacities of all children, and would be utterly useless to the poor. But let the practice of using this language universally and exclusively be studiously encouraged amongst the lower orders of the people, so that infants may lisp it in their cradles and children prefer it in their plays. Then will the care of a well-informed school-master easily correct vulgarisms, and by degrees accustom the meanest peasant to just habits of speech. The accomplishment of this object I take to be the first and most indispensable step towards national improvement.

THE superstructure to be erected on this foundation should be suited to the wants and to the habits of men necessitated to earn their bread by the sweat of their brow.

VULGAR arithmetic is adapted to every capacity, and useful to persons in every station. The common rules, and the manner of their application, should therefore be taught to all.

THE elder boys might, in my opinion, be easily and very profitably instructed in some knowledge of the mechanic powers. I do not mean to recommend the teaching of geometry, or
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any abstruse propositions; but a theory concise though correct, evinced by experiments plain and simple, but satisfactory and obviously applicable to the common occurrences of life. How often have we seen in the midst of the illiterate a true mechanical genius bursting the barriers of ignorance, toiling with self-instruction to discover the various modes of exchanging time for power, and at length succeeding by the mere dint of native ingenuity in the invention of valuable machines, or in excellent improvements of those already contrived! How much time and labour might have been saved to those deserving men by a little timely instruction! How many others possessed of similar natural endowments might proper training have rendered conscious of their powers, and capable of directing them to the best advantage!

It is scarcely to be considered as an objection to this proposal that persons who are in other respects well qualified for the instruction of poor children are, many, perhaps most of them, at present ignorant of the very principles which I am recommending they should teach. Such men, if furnished with proper instructions, could very soon qualify themselves for this part of their duty. I do not know of any book adapted for such a purpose, but one might easily be written by any man of science and good sense; and I am persuaded that by doing so he would render no inconsiderable service to the community.

HAVING now endeavoured to ascertain what kind of instruction is requisite for the children of all, even the poorest

in the kingdom, I shall proceed to consider how the communication of this instruction may be best effected.

THE children of the poor contribute not only to their solace but to their support. They cannot, therefore, be entirely given up by their parents to be adopted as the children of the publick.

NOR ought the bands of family love to be strained by such a separation. It is incumbent on the state to provide for orphans: but it should never tempt parents to abandon those whom Nature has committed to their especial care.

INSTRUCTION should, therefore, await the offspring of the indigent as near as possible to their own doors. The peasant depending for subsistence on the daily labours of himself and his growing family would gladly spare his child from the business of his cabin, during part of the day, for the sake of his education; but he could not afford the loss of his assistance whole days, or while he should be travelling to school many miles. It is evident then that any system of education which includes the children of the labouring poor cannot be carried into effect without the establishment of a considerable number of conveniently disposed schools. Let us see what measures are most expedient to be taken to effect such establishment.

By an act of parliament passed in the reign of Henry VIII. * and still subsisting, the minister of every parish in
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* 28 Hen. 8. c. 15.

the kingdom is enjoined to keep or cause to be kept in his parish a school "for teaching English, if any children of his "paroch come to him to learne the same." The faithful execution of this duty is provided for in a manner apparently the most efficacious that could be devised. The parochial minister solemnly promises by the oath of induction and institution to his living to carry into effect the provisions of the law. Can any thing be more reasonable than that the clergy should be seriously called upon to put in execution not merely the letter but the spirit of the act, and of their own oath?

MINISTERS of Him, who desired that little children should be suffered to come unto him! Ye are called upon by your country to take under your protection their rising hope. Be emulous to distinguish yourselves in the performance of this honourable duty, which Religion, and Patriotism, and Justice require at your hands. Disclaim the unworthy supposition that the little annual contribution of forty shillings, which has become the customary commutation for your personal service, completely exonerates you from your obligations. It is yours to be not only virtuous, but zealous in virtue. It is yours to see that learning and morality flow throughout the kingdom in innumerable channels; like the rivers which intersect our soil, majestic in their progress, and diffusing their beneficial influence throughout all the land.

TRUSTING that the clergy will conform to the spirit of their obligation, and provide one efficient school-master in

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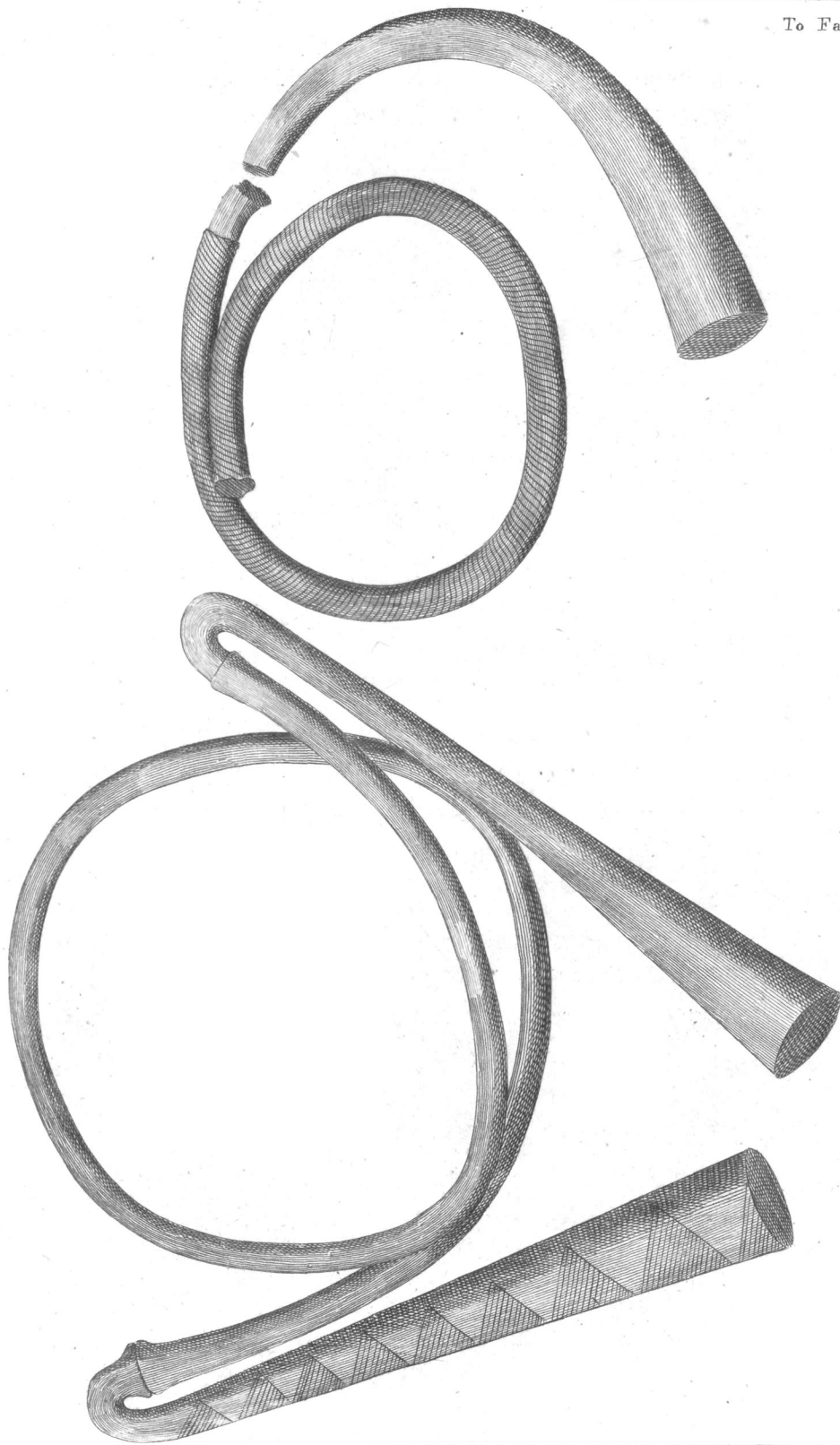
each parish for instructing all children who may present themselves, let us consider what further assistance will be necessary for extending elementary instruction, the first step of national education.

OF some parishes the extent, of others the population is so great, that one school in each cannot suffice for the instruction of all the children who reside in them. The obvious remedy of this insufficiency is to increase the number of schools in proportion to the want of them. But who are to be the judges of the necessity for new establishments? Who are to decide the expence, and applot the contributions which may be necessary for their support?

It has been suggested that "special sums might be easily ascertained and properly apportioned by the vestries, according to their knowledge of the possessions within their districts *." But vestries are a species of publick bodies very ill calculated for the government and support of charitable institutions. They are petty democracies, composed of the most fugitive materials, actuated by no uniform principle, bound to no system of conduct; and too frequently, where money is to be disposed of, full of cabal and party.

IN my opinion, the more liberal, because more select and better educated bodies, the several grand juries throughout the kingdom, would be not only competent to ascertain what schools,

* Mr. Orde's Plan.



schools, in addition to those established by the parochial clergy, might be necessary in their respective counties, but would also, in all probability, be sufficiently zealous to promote institutions which so obviously tend to the reformation of manners in the lower orders of the people.

THE several masters and mistresses placed at the head of these schools should be supported partly by a stated salary, or other certain assistance, as a house, and partly by a remuneration proportional to the number of their pupils. Some certain assistance is necessary to secure the service of reputable and well-qualified persons*; but the extent of it should be barely sufficient for the attainment of this end. The means of subsisting without exertion are the strongest allurements to indolence.

THE money necessary for the payment of the stated salaries of masters and mistresses, beyond that afforded by the clergy, should perhaps be raised by parliament. But the remainder of their recompense cannot be conveniently raised in the same way; because the amount of it, being to depend on the number of scholars, which may probably be very variable in different districts, cannot be exactly ascertained. This is the money which I propose to be raised by presentment of the several grand juries on their respective counties, according to

* In Denmark each parish is provided with two or three schools, where children are instructed in reading, writing, and arithmetic. The school-masters have, in general, a salary of £. 12 a year, a house, and a few other advantages.

to the proofs laid before them of the numbers of poor children instructed in the different schools.

THE proofs to be required by the grand juries should be special reports attested by a certain number of respectable visitors, of whom the minister or curate of the parish should always be one.

IN this system it would be the interest of all parties to promote the publick good, and scarcely any opportunities would lie open for abuse. Every child in the nation would be instructed in the elements of learning and morality, and would grow up in habits of industry and good order.

Of instruction in Agriculture.

OF all the occupations of man, that which is most conducive to health, most favourable to innocence, and most productive of national advantage, is agriculture.

THAT the manly exercises and labours of the field invigorate the frame of man and prolong its existence, and that ignorance of vice is more beneficial to society than the most refined speculative knowledge of virtue, are positions which do not require proof. It is also a truth equally certain, though less obvious, that the most durable riches of a nation depend
neither

neither on its erudition, its arts, its manufactures, nor its commerce, but on its agriculture.

FROM the land which is well cultivated, however inclement the sky or rebellious the soil, the cultivators always extract subsistence. Certain of support, they are not afraid of the burden of families. Population and industry increase together. Children are set to employment; and they, by their labour, contribute to their own maintenance and the publick wealth. Cities are supplied with the superfluous part of the population and produce of the country. Thus scholars, artists, manufacturers and traders are generated and supported by the husbandman.

WHILE the artificer puts in motion the most powerful machines for abridging labour, while the merchant covers the seas with vessels which transport the treasures of one country to another, they are still indebted to the perpetual exertion of human industry for the riches they amass. But the husbandman employs in his service Nature herself. He prepares materials for her to work on, directs her efforts, and the seasons and the glebe accumulate his wealth.

THE capital, therefore, which is employed in agriculture has a twofold advantage over all other capitals of general utility. First, it calls into existence a more considerable mass of productive labour than an equal capital employed in any other way. Secondly, in proportion to the quantity of labour which

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is thus called into existence, the value of the material wrought upon is more enhanced, and a greater value added to the annual produce of the country by this employment of capital than by any other *

It need scarce be added, that the occupation in which capital is most profitable and labour most productive must tend most to promote national wealth.

SUFFICIENTLY satisfied of the importance of agriculture, let us now inquire of what nature is that knowledge by the exercise of which such great advantages accrue to society.

Is there any difference in the soil of different spots of ground, in consequence of which some may be better disposed to yield one kind of product, and some another? Is it possible to render land more fertile by manure; and if so, must the nature of the manure be accommodated to that of the soil? Are particular seasons of the year peculiarly propitious for ploughing, for sowing, for reaping, for planting, for gathering fruit? Is there any thing intricate in the process of vegetation, in the growing of corn, in the cultivation of vineyards, in the management of nurseries, in the preservation of
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* “ The work of nature which remains, after deducting or compensating every thing which can be regarded as the work of man, is seldom less than a fourth, and frequently more than a third of the whole produce. No equal quantity of labour employed in manufactures can ever occasion so great a reproduction.”—*Smith*.

of forests? Are there any methods of destroying noxious insects, and of cherishing such as yield us honey and silk? Do we know the most advantageous manner of breeding cattle, of multiplying flocks, and of improving their fleece?

THE slightest reflection suffices to let us see the intricacy, the extent, the importance of the investigations which these questions involve.

BUT, according to the present disposition of things, how is the tyro farmer to acquire this knowledge? From the limited experience, the coarse, and often erroneous observations of his neighbours; from the vague rules handed down by tradition, and blended with prejudices and superstitions interwoven by ignorance; or, at best, by gleaning from the miscellaneous details and imperfect essays of some judicious modern experimenters. But the inferior orders of men have neither access to books, nor opportunities for study. And of those even who do enjoy superior advantages of fortune and leisure, how few are qualified to combine and usefully apply the scattered lights of modern discoveries?

COULD such a random education, and exertions so ill directed ever have led to the illustrious discoveries which dignify other departments of science? which teach us to call every star in the heavens by its name, to traverse the trackless ocean and connect the most distant regions of the globe, to descend into the bowels of the earth, to pierce the sky, and to rob the lightening of its fury?

THE establishment of proper provisions for education in agriculture appears, therefore, to be an object of the most important national concern. It appears, peculiarly so in Ireland, where the rural oeconomy has received so little commendation or encouragement; yet where the luxuriance of the soil and the mildness of the climate promise the most abundant rewards to the skilful toil of the husbandman. Let our ignorance of these affairs cease to be a bye-word in the mouths of those whose knowledge of them is, perhaps, after all, so little superior to our own. Let the glory of erecting new altars to Ceres and Triptolemus be reserved for a country not inferior in genius or patriotism to the most favoured of antiquity.

THE first object to be sought is a correct system of agriculture adapted to the particular circumstances of this country; and the next is the diffusion and inculcation of its documents.

To attain these objects a suitable plan must be spiritedly carried into execution. The following hints are suggested to be modified and matured by those whose talents, information, and publick spirit qualify them for so honourable an undertaking.

1. LET a professor of agriculture be established in or near the metropolis, where other branches of natural knowledge connected with agriculture, particularly botany and chemistry, are taught. Let this professor receive a salary suitable to the importance

importance of his station, and to the abilities and knowledge which the publick require in such a man. Allot him a space of ground sufficient for exemplifying the nature and utility of different species of manure. Let him be provided with proper implements of husbandry, and of farming in all its branches, and with models of such large machines as may be necessary for satisfactorily elucidating his instructions. Let him and his pupils have access to a publick botanical garden*; and let the superintendent of that garden be enjoined to set apart a competent portion of it for the cultivation of such grasses, herbs of the papilionaceous tribe, and shrubs, whether exotic or indigenous, as thrive in the open air. Let the professor distribute to his pupils a copious text book, containing the principles of his art, or its fundamental truths; and let him, with the most perspicuous and circumstantial accuracy, comment upon these texts, explain whatever is well ascertained, point out the errors of authors of note and of common practice, and shew what important inquiries remain yet undecided or unexplored.

2. BESIDE the pupils whom the love of science or the fame of the professor might collect around the chair of agriculture, let certain industrious youths of tolerable capacity, and of good ordinary education in reading and arithmetic, be sent from
(F 2) each

* Three hundred pounds a year have been entrusted by parliament to the Dublin Society, for three years past, "towards providing and maintaining a Botanic Garden." This institution has not been begun; but it is probable that a measure of such manifest general utility will not be much longer neglected.

each county to study agriculture, for a limited time, under the professor. These youths should receive pecuniary aid in the nature of a bounty; which might be raised either by the voluntary contributions of the principal men of wealth associated for that purpose in each county, or might be assessed on the counties at large by presentments of the several grand juries. This aid, I say, should be in the nature of a bounty; not to maintain the students as children of the publick, but to defray those extraordinary expences of a good education which might otherwise prove an insurmountable bar to their instruction. When the publick wholly support students, their money is often wholly thrown away. The supercargo may be careles who has no property of his own: let us embark our venture with him who is interested in the safety of the vessel.

3. THESE pupils, when properly instructed in the metropolis, should return to their respective homes, and there (if certified to be properly qualified) should be enabled by a further bounty to take, and furnish with proper stock or implements of husbandry small farms, wherein they might exhibit salutary examples to their neighbours of the advantage to be derived from abandoning erroneous customs.

LASTLY, these scientific farmers should not only exhibit specimens of good rural œconomy, but should be bound to inculcate in others that knowledge in which they themselves will have been instructed for the publick good.

I SUBMIT

I SUBMIT to the consideration of wise and pious men whether a portion of the Lord's day might not be set apart for this purpose, profitably to the poor, who are incapable of studying books, and at the same time consistently with the interests of religion? Might not the scientific farmer become a rustic orator, and explain in his field or his barn, how the spade, the plough-share, the scythe, or the sickle might be better employed; how the produce of the dairy might be meliorated; how the breeding or the fattening of cattle might be promoted or improved?

THUS might the light of philosophy be diffused over the fields of the peasant, and the garden of the cottager; from whence in return it would be reflected back on the highest spheres, multiplying its benefits, and cheering the whole horizon of society*.

I HAVE already hinted at the establishment of associations by gentlemen of opulence in different parts of the kingdom for the encouragement of agriculture. The Dublin Society set a noble example to the rest of the world; and the advantages which have arisen from similar institutions that have been since formed in other nations, corroborate the experience this country

* The empress of Russia has at her sole expence established a College of Agriculture at Sophisk. Mr. Samborski, (a clergyman of great learning who had studied agriculture for several years in England), has a farm of a thousand acres provided with necessary buildings and all kind of farming utensils. There he gives lectures on the theory and practice of agriculture. From each seminary of the empire two children of priests are transferred to this establishment, that they may become properly acquainted with the œconomy of a farm, and, after they succeed to benefices, may instruct their parishioners in agriculture.

try has had of its beneficial interposition. But though this society was expressly founded for the encouragement of agriculture, perhaps it does not now sufficiently direct its care to rural affairs. Manufactures and arts divide its attention, and diminish its energy.

WHETHER this apprehension be well or ill founded, no reason appears why a competition of exertions for the publick good ought not to be desired. The encouragements held out by country associations may conspire and cannot interfere with the encouragements offered by the Dublin Society. Gentlemen on the spot can best judge for the cultivation of what branch of agriculture each part of the country respectively is peculiarly favourable. They can also most effectually incite the people to exertion, and most satisfactorily judge how far their own patriotick labours are crowned with success.

IF such societies should be established, I would beg leave to suggest to their consideration whether they might not devise modes of encouraging and assisting young men in applying themselves especially to peculiar branches of agriculture.

IN manufactures it is acknowledged that the productive powers of labour are considerably increased by its division. Skill, dexterity, and judgment employed wholly upon one subject, must tend more to its improvement than if they had been engaged by several. This is true in agriculture as well as in manufactures; although it must be acknowledged that it is much easier to preserve the subdivisions of occupation distinct in the latter than in the former.

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It is only by confining to particular subjects the observation, and thought, and genius of those who cultivate them, that these subjects can ever be expected to be brought to perfection. Such encouragements, therefore, as might induce well-informed persons to apply themselves wholly to particular departments of agriculture, may be considered as an essential part of a good system of national education.

Of instruction in mining.

MINING is the most direct road to wealth ; but, like the descent to Avernus, few who pass it tread back their steps.

THAT Ireland abounds with valuable mines, we are assured by one of the ablest mineralogists in Europe, whose birth and residence this country boasts and enjoys. But shall we tempt men who deserve well of society to sacrifice their lives at the shrine of national splendour?

I SHUDDER to think how many thousand human beings, unconvicted of any crime, are at this moment plunged in mines from which they are never, perhaps, to reascend ; whose eyes “ roll in vain to find light’s piercing ray ;” who never “ wander where the Muses haunt, clear spring, or shady grove, “ or sunny hill ;” shut out from the theatre of nature, from those refreshments which she spreads with such a lavish hand upon the lap of earth ; and doomed to exchange a melancholy and sickly life for an untimely death.

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WOULD that the purposes of traffic and the conveniencies of society could be attained by the labour of such men alone as have forfeited their lives to the violated laws of their country! But this quantity of labour will not suffice to procure such a stock of minerals as the indispensable occasions of society demand. The working of mines, and the manufacture of their produce must, therefore, be in part effected by hired labourers.

DOES it not, however, well deserve the consideration of legislators, whether the most unwholesome part of this labour might not be allotted to such criminals as are now cut off from all possibility of making any atonement for their crimes? The punishment would be sufficiently severe for the most atrocious villainy: the example would be more durable, and, therefore, more impressive than execution: criminals would enjoy superior opportunities of repenting: and the nation would receive some compensation for the injuries it had sustained by their offences*.

OF

* Amongst the ancient Romans, with whom capital punishments were much less frequent than they are with us, the "damnati ad metalla" constituted the principal part of those who were employed in the mines, in the separation of the ore, and in the sulphur works. The political wisdom of preserving the lives of offenders appeared so forcible to the Romans, that even Nero, who cannot be charged with any ill-timed clemency, not only employed the "damnati in opus publicum" in digging his canal from Misemis to the lake Avernus, and from thence to Ostia, but even pardoned the most atrocious malefactors to add to their number.

Similar regulations to those of Rome obtain in some modern states, particularly in Spain. The quicksilver mines of Almaden are almost wholly wrought by criminals.

OF the mines, however, with which Ireland abounds, it must be acknowledged that the working may, by proper precautions, be rendered but little prejudicial to health. No deleterious vapours issue from any of our minerals, while in the bowels of the earth; so that if an uninterrupted current of air be preserved through the shaft and level of the mine, the workmen who descend into it will sustain no injury. Even in the roasting of the ore, and other processes in which noxious fumes arise, the danger may be considerably lessened by judicious management.

THE publick health being thus protected, the prompt acquisition of wealth by the working of our mines ought not to be neglected.

SHOULD this object be looked to, some modification of the general plan recommended for instruction in agriculture ought, perhaps, to be adopted.

INSTEAD of sending students to a professor of mineralogy stationed in Dublin, we ought to send them to Germany, to Hungary, and to Sweden, in which countries that science has now arrived to a very great degree of eminence: for a knowledge of minerals cannot be acquired except on the spot where they abound, and under the tuition of men long conversant with their sensible qualities, as well as their chemical properties.

THE persons qualified to reap advantage from this course of study are those only who have previously received a liberal education in humanity and in the sciences, especially chemistry and natural history.

THE expence of the education of such men ought not to fall wholly upon the nation : for we are not to search for philosophers amongst the lowest ranks in society. But, to the support of men whose genius leads them to this study, and whose previous acquirements qualify them for the pursuit of it, the nation ought to contribute at least so much as the expence of a foreign education exceeds that of a domestick one.

FURTHER, men so educated should be entitled to a preference above others in all offices relating to mines, and bestowed by government. These men would also be preferred by mining companies, because it is obviously the interest of all such companies to employ the most skilful as well as the most honest assistants, and because men who live by trade invariably pursue their interest when they know it.

THE expence of contributing to the foreign education of mineralogists should not, however, be a perpetual tax upon the nation. If the mines of Ireland should in process of time be as well wrought as foreign ones, the knowledge of mineralogy requisite for their cultivation could be acquired more easily and more successfully at home than abroad : then the bounties to travelling students ought to cease.

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THE acquisition of this knowledge at home would be considerably facilitated, if we were to possess mineralogical cabinets in which various natural combinations of metals, and of the other products of the mineral kingdom were well collected, and judiciously arranged. These specimens ought to be accumulated in such abundance as to allow of occasional consumption in chemical experiments. For although an examination of their sensible qualities may perhaps be generally adequate to the discrimination of different bodies, yet it cannot be denied that this criterion is both more complex and less satisfactory than chemical analysis.

AN extensive cabinet of this kind, enriched with the minerals both of foreign countries and our own, would be an inestimable national treasure. But as the excellency of such a cabinet would depend partly on its furniture, and partly (perhaps principally) on their arrangement, I suggest two provisions for consideration.

FIRST, that it should be required of every travelling student of mineralogy receiving a stipend from the nation, to collect in those countries wherein he sojourns, and to transmit to Dublin such specimens as are most useful or rare.

SECONDLY, that a board of mineralogy should be erected, consisting of the most eminent character in that science as president, and of such others as may be thought worthy of being associated with him. That this board should receive a parlia-

mentary grant of a gross sum to be expended in building apartments for a publick cabinet of mineralogy, and a chemical laboratory under the same roof; and should also receive such annual sums as would be necessary to preserve them in repair, and to give to a competent number of travelling students, to be selected by the board, honorary stipends.

FINALLY, that the care of procuring, arranging and preserving specimens, and the power of permitting students to examine them, and to enjoy the use of the chemical laboratory, under such restrictions as might seem adviseable, should be entrusted to this board.

THIS plan would certainly be somewhat expensive; but when we consider the engines that are to be put in motion, and the skill and integrity of the persons to whom the direction of them is proposed to be entrusted, perhaps it may be allowed that few could be devised more directly conducive to national opulence.

Of instruction in manufactures.

NEXT to the cultivation of the earth, society is most benefited by the manufacture of its produce. How manufactures may be best promoted, and what kinds ought to be principally encouraged in a system of national education, I shall now endeavour to ascertain.

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THE promotion of manufactures depends on the number and skill of those who engage in them. Inasmuch, therefore, as manufactures are useful to the community, exertions ought to be made to increase the number and improve the skill of manufacturers.

To attain this end the following scheme is suggested. I must premise that this, like what I have thrown out upon other subjects, is offered, not as a perfect plan, but as one yet to be modified as the site of peculiar circumstances may require.

LET several schools be erected in different parts of the kingdom for the instruction of youth in various branches of manufacture; some for teaching the linen, others the woollen manufacture, others that of silk, of cotton, of hardware, and so forth. The general outlines of the plan of each of these schools I shall attempt to delineate.

1. THERE should be a head master well known to be perfectly conversant in every branch of the department which he is appointed to superintend. This master should have the direction of the whole school, subject only to occasional controul in the manner hereafter specified. The salary of this master should (for obvious reasons), be derived either wholly or principally from a certain proportion of the profits of the manufacture wrought in the school.

2. THERE

2. THERE should be a competent number of subordinate supervisors, one to teach the mysteries and inspect the management of each particular branch of the general department.

3. THERE should be a head class of students intended to be master manufacturers, each of whom should pay a certain sum on admission into the school. These should be instructed in the theory and practice of every branch of the manufacture to which the school is appropriated, from the collection of the raw material to its conversion into the most elaborate composition of art. These students should also be taught book-keeping, and in short whatever is necessary or useful to be known by a master manufacturer; particular attention being paid to their education in any one branch for which they may be peculiarly intended.

4. THERE should be a second class, consisting of poor children, who should be admitted gratis, upon proper recommendation, and maintained and clothed entirely at the publick expence. These should be instructed in the subordinate labours of handicraft, to which they should be principally confined.

I SAY principally, but not wholly; because I am not of opinion (with Dr. Priestley) “ that the mechanical parts of any
“ employment will be best performed by persons who have
“ no knowledge or idea of any thing beyond the mere prac-
“ tice.” Some of the most valuable improvements in machinery and in the construction of philosophical instruments have been made by intelligent workmen. In the first fire-engines
a boy

a boy was constantly employed to open and shut alternately the communication between the boiler and the cylinder, according as the piston either ascended or descended. One of those boys, who was anxious to be at liberty to play with his companions, was the first who observed that by tying a string from the handle of the valve which opened this communication to another part of the machine, the valve would open and shut without assistance. Thus one of the greatest improvements that has been made upon this machine since its invention was the discovery of a boy who sought to save his labour. Was the genius of this boy unworthy of being cultivated? or should he have been treated merely as an automaton because he was poor? I shall adduce another example of an opposite kind. In the staple manufacture of this country a considerable loss has been occasionally sustained by the rotting of linens in consequence of the acidulous liquor wherewith the bleachers sour them having been too strong. The only test which these workmen employ to ascertain its strength is their taste. But this sense is proverbially irregular. A very little chemical instruction would furnish them with a criterion sufficient to secure the good effects of the liquor and to prevent it from being ever corrosive.

5. THE business of the school would be completed by a competent number of experienced journeymen, who should be employed in such work as cannot be performed by children, and in the instruction of all, particularly the scholars of the second class, in the several operations of manual art.

LASTLY,

LASTLY, a council, consisting of a certain number of gentlemen residing in the neighbourhood of such schools, (and who may be appointed, in some cases by government, in some by the trustees for promoting the linen and hempen manufactures of Ireland, in some by the Dublin Society, or otherwise, as might be thought adviseable), should regulate the whole exterior and interior management of each manufacturing school, audit the accounts, receive and disburse cash, order implements and machines, procure raw materials, dispose of the manufactures, appoint masters, admit and dismiss scholars.

SUCH materials should be procured as are necessary for executing the several pieces of workmanship in the best manner.

THE most useful machines for abridging labour should especially be provided, and the proper management of them carefully attended to.

PRIZES for superior dexterity and industry should be liberally, but chastely distributed.

WHENEVER a scholar of the head class may appear, after due examination and trial, to be properly qualified for the exercise of his trade, he should receive a suitable certificate from the council of regulation, which certificate should entitle him to be admitted to all the advantages at present confined to those who have served a regular apprenticeship to members of corporations.

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A SIMILAR rule should be established with respect to scholars of the second class. These, moreover, should be entitled to a preference above other journeymen in being employed at the school, and should not only receive pay as such, but if they shall have continued to labour industriously in that capacity for a certain length of time, or if they shall have obtained a certain number of prizes for excellence in their art, should receive such a stock of implements or machines as may enable them to enter into trade on their own account, and employ an additional number of hands.

THESE are but the leading features of a plan which can be perfectly fashioned only by the deliberations and exertions of persons conversant in the several manufactures.

I NOW proceed to obviate such objections against the general scheme as occur to me.

FIRST, let us consider the expense of such kind of establishments.

THE labour of children employed at machinery may be fairly considered as equally productive with the labour of an equal number of men unassisted by any combination of mechanic powers. The labour of the meanest hired labourer cannot be worth less than that of an able-bodied slave. Now the labour of an able-bodied slave is calculated by a very judicious author (Mr. Cantillon) to be worth double his maintenance. From hence I conclude that the expense of maintaining all the children educated in manufacturing schools would be at least defrayed by the profits of their labour.

I HAVE equal reason to conclude that the maintenance and pay of experienced journeymen would be at least compensated by the fruits of their labour.

WHETHER the residue of the profits arising from the manufactures wrought in these schools would suffice to pay the salaries of masters, and other current expenses, I am not prepared to say. I think it probable that, in most cases, it would; because these salaries can scarcely be rated at more than a proportion of the whole profits accruing from the manufactures, equivalent to that which private manufacturers lay by to enrich themselves. Indeed I apprehend that if the schools should be well regulated, and the manufactures wrought in them properly disposed of, the salaries of masters would not amount to this surplus of profit.

THE fees of admission of the head scholars might be applied to the purchase of machinery. After some time it is probable that this resource would be more than sufficient for their purchase and preservation in repair.

It only remains to provide buildings adequate to the purposes now mentioned. The expense of these might probably be defrayed partly by subscriptions or bequests, and partly by parliamentary aid. These would certainly be advanced with alacrity, if the scheme should appear to be in its principle and execution decidedly disinterested, and in the event of its success decidedly advantageous to the community.

THE

THE second objection which I conceive might be urged against this scheme is, that it militates against the exclusive privileges of corporations, and the regulations of apprenticeship*.

THIS is the quarter from whence the most strenuous opposition is to be dreaded. For when did any set of men who enjoyed a monopoly agree to relinquish it for the publick good?

BUT the impolicy of all kinds of monopoly in trade may be easily proved. The profits and the wages of all persons who enjoy the benefits of a monopoly are greater than the skill and labour of such persons merit. This operates as an encouragement

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* The regulations of apprenticeship in Ireland are upon a different footing, and somewhat less illiberal than in England. In the latter country a statute was enacted in the 5th of Elizabeth, prohibiting all persons from exercising any craft or trade then used who should not have previously served an apprenticeship for seven years. In Ireland similar prohibitions obtain in all corporate towns by authority of bye-laws of the several corporations. These prohibitions, however, extend only to natives of Ireland; for by a rule made by the lord lieutenant and privy council, (which in this instance has the force of a law, according to a statute passed in the 17th and 18th of Charles the Second) all foreigners and aliens, as well persons of other religious persuasions as protestants, who are merchants, traders, artizans, artificers, seamen, or otherwise skilled in any trade or the workmanship of any manufacture, or in the art of navigation, who come into any city, walled town or corporation, with intent there to reside, shall, upon request made and payment of twenty shillings by way of fine to the chief magistrate and common council, or other persons authorised to admit freemen, be admitted freemen of said city, &c.; and in like manner shall be admitted to the freedom of guilds of their respective trades, with the full enjoyment of all privileges of buying, selling, working, trading, &c.; and any magistrate refusing to admit foreigners so applying shall be disfranchised.

ragement to fraud and to idleness ;—to fraud, because monopolists receive more for their commodities than their intrinsic value ;—to idleness, because the obvious policy of keeping the market for those commodities understocked prevents them from supplying it as well as they can, from working as much as they are able.

THE exclusive privileges of corporations and the regulations of apprenticeship are the gates of monopoly which shut out natural competition, restrain industry and genius, and in the end fall as a dead weight on the body of the publick.

As to the exclusive privileges of corporations which obstruct the circulation of labour from one place to another even in the same employment, workmen, I know, will be ready to urge that the price of their labour ought to be protected by monopolies. But this is a false, as well as an illiberal argument ; for the demand for workmen always increases with the thriving of manufactures and the extension of commerce ; and with the increase of demand for workmen will the price of their labour be necessarily increased. Hence it is that the wages of workmen are always higher in capitals than in the country.

As to the regulations of apprenticeship which obstruct the circulation of labour from one employment to another even in the same place, it is difficult to say what can be alleged in its favour. The common cry is that apprenticeships are
necessary

necessary to guard against bad workmanship. But this argument cannot bear lifting. Are not apprentices uniformly employed in work by their masters? Is not work as well executed in—Paisley, for example, as in any part of Europe, although the term of apprenticeship is not half as long in Scotland as it is in most other countries? Has any national disadvantage accrued from the act of parliament which expressly opens the linen trade in England to all persons? In fine, are the manufactures of Manchester, Birmingham, and Sheffield (which do not come within the statute of apprenticeship) any discredit to the people engaged in them?

SOME advantage to society may possibly accrue from the quarantine of a probationary term being exacted from those who exercise a craft concerning workmanship in which every man is not qualified to judge by inspection. A man may be a bad attorney or a bad apothecary without being discovered to be so by him who could instantly discover the coarseness of a hat or the clumsiness of a boot; and the fortunes and lives of the community may suffer by misplaced confidence in such men. But, after all, is their having served an apprenticeship any testimony of their skill, or security for their integrity? It may be said that it affords a presumption in their favour. But let such presumptions be superseded by proofs. Let an examination of their qualifications by persons eminent in their art be instituted as a test of their competency, and let an examination of their workmanship by the same persons be resorted to as a test of their honesty. It has been well observed that the sterling mark upon plate, and the stamps
upon

upon linen or woollen cloth, give the purchaser much greater security than any statute of apprenticeship: he generally looks at these, but never thinks it worth his while to inquire whether the workman had served a seven years apprenticeship.

CAN it be doubted that a man possessed of eminent genius, or industry, or both, may not acquire perfection in his art sooner than one who hath neither abilities nor application? And is it consistent with the natural rights of man to put forth laws of form and ceremony which shall inhibit any one from the profitable exercise of his talents?

THE skill and the labour of every man are his most indisputable, and ought to be his most unviolated property. The poor man's liberty to earn his bread by whatever honest means Providence has put in his power is a charter granted by Heaven, which ought to be held sacred upon earth.

THIS is a liberty which can never degenerate into licentiousness; for who will employ a labourer not worthy of his hire? but if worthy, why should he be debarred of employment?

CAN it escape the most superficial observer that all business which is carried on in the open air must necessarily be precarious, depending on the concordance between the season and the work? The mason is idle in frost, the flater in storms, the bleacher in snow. Besides, the demand for different manufactures

nufactures must vary according to the time of year, to the change of fashions, to foreign orders. See then how your laws of apprenticeship operate—they prevent all labour when a particular kind cannot be exercised; and when there is an extraordinary demand for any particular kind, they prevent a sufficiency from being procured.

THE ancients knew no such impolitick restrictions. They held that every man has a right to learn what another is willing to teach upon such terms as may be agreed on between them. They never conceived that industry is promoted by the profits of one man's labour necessarily centering, for a stated number of years, in the aggrandizement of another. They never held that the mysteries of all crafts are equally difficult to be acquired. They never conceived that skill and integrity are injured by the workman's having been a redemptionary slave. Yet we maintain customs founded upon such notions; though we see that apprentices are, in general, as idle as they dare be; that when put out, (as they commonly are from charity schools,) with small apprentice fees, and bound for a long term of years, they become peculiarly worthless and unprofitable; but that journeymen paid by the piece are prone even to endanger their healths by the assiduity of their application.

To conclude these comments; though I am an enemy to every species of monopoly in trade, I do not propose to overturn the whole system of corporations and apprenticeships. But let the doors of corporations be opened, by means of manufacturing

manufacturing schools, for the admission of all who are properly qualified. At the same time let a fair competition be instituted between these schools and private masters, by removing from the latter whatever restraints in the number of apprentices are at present imposed upon them.

THE only remaining objection against manufacturing schools which I can foresee, relates to the labour of children, and the impropriety of calling into action their whole strength.

OF the tenderness due to youth no one can be more sensible than I am, no one more solicitous that it should be sedulously regarded. But let it be remembered how much labour is diminished by machinery, and how easy it is in an extensive factory to apportion to every degree of strength its proper employment.

THAT children should be rendered as valuable to the community as is consistent with their health will scarcely be controverted. Early habits of industry lay the foundation of order and temperance through succeeding life. These procure riches, promote health, and secure comfort to individuals; and by consequence establish national prosperity. When the possession of children is a treasure, marriage is wooed with eagerness, and enjoyed with transport; plenty smiles in the train of population; and the land overflows with innumerable sources of fertility and wealth.

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HAVING now endeavoured to shew how instruction in manufactures may be best promoted, few words will suffice to ascertain what kinds ought to be principally encouraged in a system of national education.

THE manufactures best entitled to encouragement are those which are most favourable to health and good morals, best assisted by the natural resources of the kingdom, most congenial to the disposition and habits of the people, and most prized by the inhabitants of other countries.

Of instruction in professional and polite literature.

THIS species of instruction being chiefly designed for those who are to fill the higher orders of society appears to be less immediately the object of our present inquiry than any of the foregoing. The education of the rich must necessarily be less systematical than that of the poor; both because the knowledge of the former is more various, and must therefore be drawn from a greater variety of sources; and because men in superior ranks are likely to judge themselves what kind of education is best fitted for their children, and possess the means of carrying the result of their judgment into execution. It must, however, be acknowledged that all men are more or less swayed by custom: it seems therefore advisable to point out what species of education ought to be customary, what establishments ought to be encouraged for instruction in professional and polite literature.

I SHALL briefly consider, first, what kind of knowledge men intended for the superior walks of life ought to possess; and secondly, what means ought to be employed for facilitating the communication of this knowledge.

THE education of the divine, the lawyer, the physician, the painter, the musician, the naval and military officer, the merchant, the statesman, and the elegant scholar, ought to branch from one common trunk.

STRICT grammatical accuracy in the use of the English language, and a familiar acquaintance with the Latin and French should be considered as indispensable ground-works for whatever superstructure is afterwards to be erected.

SOME modern writers, and those too of repute, have thought proper to decry the study of the dead languages as a useless tax upon the memory; but these gentlemen have over-rated the difficulty of acquiring a competent knowledge of these tongues; they have omitted to consider how many English, especially technical words, spring from the Grecian fount; and above all they have forgotten how universally the Latin tongue pervades every department of literature; so that Tully's assertion is as true at this day, over all the realms of polished society, as it was originally in the city of Rome—
“ Non tam præclarum esse scire Latine, quam turpe nescire.”

A GENERAL knowledge of ancient and modern history, of the nature of the constitution under which we live, and of
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the laws by which we are bound, appears essential in a course of liberal education.

IN men whom noble birth or personal interest holds forth as candidates for the rank of legislators, the want of full information upon these subjects is not to be pardoned.

OF political knowledge there are two kinds, without possessing a competent share of which no senator can discharge wisely or conscientiously the trust reposed in him by his country; a knowledge of constitutional, and of commercial policy. To maintain the constitution by the support of government, the preservation of order, and the protection of liberty; and to augment national opulence by the encouragement of manufactures and the extension of trade are the grand objects of parliamentary deliberation. But is it possible that men can be qualified to make constitutional and commercial laws to bind a nation, without ever having studied the principles of constitutional or commercial policy? And with what pretensions to honesty or even decency can men think of assembling for this purpose without these qualifications?

LASTLY, the education of men designed for the higher walks of life cannot be complete without some acquaintance with the history of nature, a subject neither less interesting nor less important than the history of man. The properties of the bodies which surround us, and with which we are every moment of our lives conversant, are more or less known by every person. But the man of good education knows

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philosophically,

philosophically, what the illiterate only collect from experience, or glean by accident.

I FORBEAR to enter into any examination of the mode of prosecuting the particular studies which are peculiarly suited to the several departments of professional and polite literature. They who preside over these departments are certainly the most competent to regulate the studies and ascertain the qualifications of such as are to be admitted into them. To these men it would be at least superfluous, if not impertinent, to offer any specific proposals for improvement. But I should never cease to press upon their minds the primary principle that ought invariably to influence them.—Let your respective departments be preserved pure from the pollution of the illiterate and illiberal; but let the only barriers which you employ to fence them be learning and honour. Let all jealous and fordid monopolies be banished from your policy. Desert alone is the sacred Ancyle upon the preservation of which your fate depends.

I NOW proceed to offer a few observations on the means which ought to be employed in disseminating liberal knowledge.

I OFFER my sentiments on this head with great diffidence, because I have the misfortune of differing materially from a gentleman who not long ago called the attention of the legislature to the subject of national education, and proposed a plan of an improved system to be adopted in this kingdom,
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in the unfolding of which he displayed considerable acuteness and ingenuity, as well as the most disinterested philanthropy.

THERE are two rules of civil policy which appear to me to deserve the highest respect.

THE one is, that civil institutions should offer as little violation as possible to moral feelings. Hence I am of opinion that education, instead of being rendered a mean of weakening the connexion between parent and child, ought to be so directed as to cement more strongly this natural alliance. I am an enemy, therefore, to all plans of national education which proceed on this preliminary—"The parents of them all shall be exempt from any expence whatever, but they shall have no right of interference about their children*." The more extensive such plans are, the more pernicious will they be if carried into execution. It is vain to expect the growth of other virtues in the nation, if our first care be to eradicate filial piety.

IN all the hints which I have hitherto thrown out, I have constantly had in view the blending, as much as possible, of publick and private education. The former, by the emulation it excites, promotes industry and art; the latter, by cherishing family love, prepares the mind for more diffused benevolence, and awakens all the honourable feelings of the soul.

THE other rule of civil policy which I think ought to be regarded is, not to increase the competition in any employment

* Mr. Orde's plan.

ment disproportionately to the profits arising from the exercise of that employment. If we do, many of the competitors will sink into indigence, and the employment itself degenerate into contempt. The pensions, scholarships, exhibitions, bursaries, &c. which have been from time to time established in England, have, it is true, diffused extensively classical knowledge; but they have attracted around them such a swarm of poor scholars, which neither they, nor the professions to which they lead are competent to maintain, that they have tended much to cast the honourable class of men of letters into degradation and disrepute. In England at this day forty pounds a year is in most country places considered as very good pay for a curate, and notwithstanding an act of parliament interposing to preserve the respectability of the clergy, there are many curacies the salaries of which are under twenty pounds.

I AM therefore no friend to that part of Mr. Orde's system by which the defects of English education are proposed to be transplanted into Ireland.—Boys are to be elected from parish to provincial schools; from provincial schools free scholars are to be chosen; from this class some are to be attached to diocesan seminaries with small studentships; of these students some are to receive exhibitions; of these exhibitioners some are to go out on salaries of twenty-five pounds a year for seven years as king's scholars; out of king's scholars are to be chosen king's students; out of king's students, seven who are bachelors of arts in the university, and who are to have fifty pounds a year each for seven years; and to make room for all this influx of classical adventurers, another university is to be established in the north!—In this system every competitor is the more fortunate

fortunate as he is the sooner thrown out of the field of competition. He then abandons the glittering but deceptive chase, compelled to return to prosperity in the humbler walks of life.

IN short, I think it better to increase the value of the literary places at present endowed in this kingdom, than to add to their number and diminish their estimation. I think it better to preserve our charter schools, and our diocesan schools, on the plans which their founders devised, taking care to correct whatever abuses may have crept into the conduct of them, than to consolidate them into three or four great provincial seminaries, wherein profitable instruction would be difficult, proper attention to morals impracticable, combination amongst the boys formidable, and the breaking out of any epidemical disease peculiarly dangerous.

I HAVE only, then, to propose, that the heads of our university should take into consideration the following hints for the improvement of education in that seminary.

SHOULD not some knowledge of ancient history as well as of languages be uniformly insisted on at the examination for entrance?

WOULD not the collegiate course be amended by being rendered more subservient to the views of general education? In particular, might not the abstruse and sterile science of metaphysics be in a great measure dispensed with? Ought not an account of the chemical as well as of the mechanical properties
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of bodies to be required at the examinations in natural philosophy? Should not modern history, especially that of Great Britain and Ireland, be rendered a part of the course?

THERE are other kinds of knowledge which, though they need not be universally insisted on, ought, perhaps, to be publickly taught. Should there not be established in the university a professorship of the theory of legislation, for the instruction of men destined to take an active part in publick affairs, in the principles of constitutional and commercial policy? Should not the means of acquiring a knowledge of the style, and a taste for the beauties of those works which may be termed the British Classics be extended to every man destined for a liberal course of life, even before the time of taking a degree? And ought not the professorships of legislation and rhetoric to be endowed with competent salaries, and the exertions of the professors further stimulated by reasonable fees from the attending pupils?

LASTLY, should not some further provisions be made in the university for the promotion of oratory, the legitimate offspring and the faithful protector of publick liberty?